

IN THE CLAIMS:

1 | 1. (CURRENTLY AMENDED)——~~1.~~ A method of operating a switch for frames in a
2 computer network, comprising:
3 receiving a frame (the received frame) at a port of said switch, said received
4 frame containing one or more indicia of frame type designation;
5 deriving a virtual local area network (derived VLAN) value in response to said
6 one or more indicia of frame type designation;
7 accessing a forwarding data base with said derived VLAN value to determine a
8 destination address; and,
9 forwarding, in response to said derived VLAN value, said received frame to an
10 output port for transmission to the destination.

1 2. (ORIGINAL) The method of claim 1 further comprising, said forwarding step for-
2 warding in response to said derived VLAN value and said destination.

1 3. (ORIGINAL) The method of claim 1 wherein said indicia of frame type designation
2 further comprises: a protocol type.

1 4. (ORIGINAL) The method of claim 1 wherein said indicia of frame type designation
2 further comprises: a subnet value.

1 5. (ORIGINAL) The method of claim 1 wherein said indicia of frame type designation
2 further comprises: a virtual local area network established in said computer network.

1 6. (ORIGINAL) The method of claim 1 wherein said indicia of frame type designation
2 further comprises: an IP source address.

1 7. (ORIGINAL) The method of claim 1 wherein said indicia of frame type designation
2 further comprises: an index value associated with a port at which said received frame was
3 received.

1 8. (ORIGINAL) The method of claim 1 further comprising:
2 deriving a MAC address from said derived VLAN value and forwarding said received
3 frame to a port for transmission to a destination having said MAC address.

1 9. (ORIGINAL) A switch to forward frames in a computer network, comprising:
2 a port to receive a frame (the received frame), said received frame containing one
3 or more indicia of frame type designation;
4 a parsing engine to derive a virtual local area network (derived VLAN) value in
5 response to said one or more indicia of frame type designation;
6 a forwarding data base having said derived VLAN value as input and a destina-
7 tion address as output; and,
8 an output port to transmit said received frame, in response to said derived VLAN
9 value, for transmission to said destination address.

1 10. (ORIGINAL) The apparatus as in claim 9 further comprising:
2 a forwarding engine for forwarding said received frame in response to said derived
3 VLAN value and said destination address.

1 11. (ORIGINAL) A computer readable media containing instructions for the practice of
2 the method of claim 1.

1 | 12. (CURRENTLY AMENDED) Electromagnetic signals ~~travelling~~traveling on a com-
2 puter network, said electromagnetic signals carrying information to practice the method
3 of claim 1.

1 13. (ORIGINAL) A method of operating a switch for frames in a computer network
2 comprising:
3 using one or more indicia of frame type designation found in the received frame
4 to derive a virtual local area network (derived VLAN) value;
5 using the derived VLAN value in making forwarding decisions.

1 14. (ORIGINAL) The method of claim 13 further comprising:
2 controlling broadcast domains in the computer network by forwarding in response to the
3 derived VLAN value.

1 15. (ORIGINAL) The method of claim 13 further comprising:
2 using an indicia of the receiving port in constructing the derived VLAN value.

1 16. (ORIGINAL) A computer readable media containing instructions for the practice of
2 the method of claim 13.

1 | 17. (CURRENTLY AMENDED) Electromagnetic signals ~~travelling~~traveling on a com-
2 puter network, said electromagnetic signals carrying information to practice the method
3 of claim 13.